UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4
ATLANTA FEDERAL CENTER
61 FORSYTH STREET
ATLANTA, GEORGIA 30303-8960

October 28, 2020

Mr. Ron Gore
Chief
Alabama Department of Environmental
Management Air Division
1400 Coliseum Boulevard
Montgomery, Alabama 36130

Dear Mr. Gore:

Thank you for submitting the state of Alabama's 2020 annual Ambient Air Monitoring Network Plan (Network Plan), dated July 1, 2020. The Network Plan is required by 40 Code of Federal Regulations (CFR) §58.10. The U.S. Environmental Protection Agency (EPA) Region 4 understands that the Alabama Department of Environmental Management (ADEM) provided the public a 30-day review period and public comments were received. Our understanding is that the ADEM did not respond to the public commenter(s) as required by 40 CFR §58.10(a)(1) because in its opinion the comments were substantially the same as submitted during a previous year's Network Plan public comment process and no changes to its network were warranted based on these comments.

Our review of the submitted comments identified specific new comments that were raised such as the request for information on the resources required to install and operate a PM_{10} monitor near the coal terminal near the Port of Mobile. While the ADEM provided clarifying comments to the EPA in a letter, dated October 23, 2020, these should have been included in a response to the commenter, even if the result of your evaluation is not a change to the Network Plan. Public comments and the response to comments are part of a complete Network Plan submittal to the EPA as required pursuant to 40 CFR §58.10(a)(1). We have enclosed these comments, as well as additional comments, on your Network Plan.

Thank you for working with the EPA to monitor air pollution and promote healthy air quality in Alabama. Please let us know of any problems in meeting any of the requirements we have identified. If you have any questions or concerns, please contact Gregg Worley at (404) 562-9141 or Darren Palmer at (404) 562-9052.

Sincerely,

CAROLINE FREEMAN

Digitally signed by CAROLINE FREEMAN
Date: 2020.10.28 19:09:22 -04'00'

Caroline Y. Freeman
Director
Air and Radiation Division

Enclosure

CY 2020 State of Alabama Ambient Air Monitoring Network Plan
U.S. EPA Comments and Recommendations

This document contains the U.S. Environmental Protection Agency (EPA) comments and recommendations on the state of Alabama's 2020 Ambient Air Monitoring Network Plan (Network Plan). Ambient air monitoring rules, which include regulatory requirements that address network plans, data certification, and minimum monitoring requirements, among other requirements, are found in 40 CFR Part 58. Minimum monitoring requirements for criteria pollutants are listed in 40 CFR Part 58, Appendix D, including those for ozone (O_3), particulate matter less than 2.5 microns ($PM_{2.5}$), particulate matter less than 10 microns (PM_{10}), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), carbon monoxide (CO), and lead (Pb).

The minimum monitoring requirements are based on core based statistical area (CBSA) boundaries as defined by the U.S. Office of Management and Budget (OMB), July 1, 2019, population estimates from the U.S. Census Bureau, and historical ambient air monitoring data. Minimum monitoring requirements for O_3, $PM_{2.5}$, and PM_{10}, only apply to metropolitan statistical areas (MSAs), which are a subset of CBSAs. OMB currently defines 13 MSAs in the state of Alabama. These MSAs and the respective July 1, 2019 population estimates from the U.S. Census Bureau are shown in Table 1.

Table 1: Metropolitan Statistical Areas and July 1, 2019 Population Estimates

MSA Name	Population
Anniston-Oxford-Jacksonville, AL	113,605
Auburn-Opelika, AL	164,542
Birmingham-Hoover, AL	1,090,435
Columbus, GA-AL	321,048
Daphne-Fairhope-Foley, AL	223,234
Decatur, AL	152,603
Dothan, AL	149,358
Florence-Muscle Shoals, AL	147,970
Gadsden, AL	102,268
Huntsville, AL	471,824
Mobile, AL	429,536
Montgomery, AL	373,290
Tuscaloosa, AL	252,047

Public Inspection and Comments
40 CFR §58.10(a)(1)

According to 40 CFR 58.10(a)(1), "the annual monitoring network plan must be made available for public inspection and comment for at least 30 days prior to submission to the EPA and the submitted plan shall include and address, as appropriate, any received comments." The ADEM provided the public a 30-day review period and several comments were received. The ADEM submitted these comments with the final Network Plan. However, none of the received comments were addressed by the ADEM in this network plan process.

After review of all comments received, the EPA has determined that there were substantive comments received that related directly to the annual network plan that were not addressed. While the ADEM

provided clarifying comments to the EPA in a letter dated October 23, 2020, these should have been included in a response to the commenter, even if the result of your evaluation is not a change to the Network Plan. Public comments and the response to comments are part of a complete Network Plan submittal to the EPA as required pursuant to 40 CFR §58.10(a)(1).

Network Changes Proposed by the ADEM
40 CFR §58.10(b), 58.14

The EPA has approval authority for changes to state or local air monitoring stations (SLAMS). SLAMS include the ambient air quality monitoring sites and monitors that are required by Appendix D of 40 CFR Part 58 and are needed for the monitoring objectives of Appendix D, including NAAQS comparisons, but may also serve other data purposes. The EPA is not required to approve changes made to special purpose monitors (SPMs). SPMs are monitors designated by the monitoring agency as special purpose and do not count towards minimum monitoring requirements of 40 CFR Part 58. SPMs are required to be identified in the Network Plan for public and the EPA review.

The ADEM's Network Plan identified proposed changes to the state's ambient air monitoring network. The local agency monitoring programs are operated by the City of Huntsville Division of Natural Resources and the Environmental Management (HDNREM) and the Jefferson County Department of Health (JCDH), who submit their own plans separately to the EPA. The EPA also responds to those plans separately. The EPA's rationale for approval or disapproval of specific network changes can be found below in the pollutant sections of this document. Monitors proposed for discontinuation and the EPA's determination are summarized in Table 2. Monitors proposed for reconfiguration, relocation, or monitor start-up and the EPA's determination are summarized in Table 3.

Table 2. Monitors Proposed for Discontinuation

CBSA	AQS ID	Site Name	Pollutant	Type	Comments
Columbus-Phenix City, GA-AL	01-113-0003	Phenix City - South Girard School	$PM_{2.5}$	SLAMS	January 1, 2021, the ADEM is assigning their FEM as the primary monitor at this site and will discontinue the primary FRM on 12/31/2020. The collocated FRM will remain to meet the FEM QA collocation requirement and operate on a 1-in-6 day schedule. Approved.

Table 3. Proposed Changes in Monitoring

CBSA	AQS ID	Site Name	Pollutant	Type	Comments
Decatur, AL	01-103-0011	Decatur	$PM_{2.5}$	SPM	Added API T-640 $PM_{2.5}$ FEM as of July 1, 2020 to evaluate the method. A primary $PM_{2.5}$ FRM will remain operational at this site during this evaluation period. Approved.
N/A - Sumter County, AL	01-119-0003	Ward	O_3	SLAMS	A BAM-1022 is replacing the FRM as the primary monitor. No FRM/FEM QA collocation required since this is being met in Phenix City. Approved.
Tuscaloosa, AL	01-125-0004	VA	$PM_{2.5}$	SLAMS	Added a collocated FRM on 1-in-6 day schedule to maintain FRM QA Collocation requirements. Approved.
	01-125-0010	Duncanville	O_3	SLAMS	New shelter installation in 2021. Acknowledged.

All changes listed in Tables 2 and 3 above are approved and may be incorporated by or before January 1, 2021.

Operating Schedules
40 CFR § 58.12

The monitoring network proposed in the Network Plan meets the required operating schedules for all continuous analyzers and all manual Pb, PM_{10}, $PM_{2.5,}$ and $PM_{2.5}$ Speciation Trends Network (STN) monitors.

Air Quality Index (AQI) Reporting
40 CFR § 58.50

AQI reporting is required for MSAs with populations of 350,000 or more. Four MSAs in the state of Alabama meet this criterion: Birmingham, Huntsville, Mobile, and Montgomery. The Network Plan indicates that an AQI is being reported in each of these MSAs, as well as in Phenix City. Thus, the state is meeting its AQI reporting requirements.

National Core (NCore) Monitoring Network
40 CFR Part 58, Appendix D, Section 3.0

A requirement that each state operate at least one NCore site is found in 40 CFR Part 58, Appendix D, Section 3. The NCore site must measure, at a minimum, $PM_{2.5}$ particle mass using continuous and integrated/filter-based samplers, speciated $PM_{2.5}$, $PM_{10-2.5}$ particle mass, O_3, SO_2, CO, NO/NO_y, wind speed, wind direction, relative humidity, and ambient temperature. This section requires each state to operate at least one NCore site. States may delegate this requirement to a local agency. The JCDH maintains and operates the NCore site in the state.

Table 4. NCore Monitoring Sites

CBSA	AQS IDs	Site Name	Requirement Met (Y/N)
Birmingham-Hoover, AL MSA	01-073-0023	North Birmingham NCore	Y

The NCore monitoring network described in the Network Plan meets all design criteria of 40 CFR Part 58.

O_3 Monitoring Requirements
40 CFR Part 58, Appendix D, Section 4.1 and Table D-2

Ambient air monitoring network design criteria for O_3 are found in 40 CFR Part 58, Appendix D, Section 4.1. This section requires a state, and where appropriate, local agencies operate O_3 sites for various locations depending upon area size and typical peak concentrations. Thirteen O_3 monitors are required in Alabama and the ADEM and the two local agencies operate 19 monitors (see Table 5). In addition, the EPA operates one non-SLAMS O_3 monitor at the CASTNET Sand Mountain site (see Table 6).

Table 5. O_3 Design Criteria – Minimum Required SLAMS Monitors

MSA	# Minimum Required SLAMS Monitors	# of SLAMS Monitors	AQS IDs (Site Name) of SLAMS Monitors	Requirement Met (Y/N)
Anniston-Oxford-Jacksonville, AL	0	0	N/A	Y
Auburn-Opelika, AL	0	0	N/A	Y
Birmingham-Hoover, AL	2	7	01-117-0004 (Helena) 01-073-5003 (Corner)[1] 01-073-1003 (Fairfield)[1] 01-073-1010 (Leeds)[1] 01-073-1005 (McAdory)[1] 01-073-0023 (NCore)[1] 01-073-6002 (Tarrant)[1]	Y
Columbus, GA-AL	1	1	01-113-0003 (Phenix City)	Y
Daphne-Fairhope-Foley, AL	1	1	01-003-0010 (Fairhope)	Y
Decatur, AL	1	1	01-103-0011 (Decatur)	Y
Dothan, AL	0	0	N/A	Y
Florence-Muscle Shoals, AL	0	0	N/A	Y
Gadsden, AL	1	1	01-055-0011 (Southside)	Y
Huntsville, AL	2	2	01-089-0014 (Old Airport)[2] 01-089-0022 (Capshaw)[2]	Y
Mobile, AL	2	2	01-097-0003 (Chickasaw) 01-097-2005 (Bay Road)	Y
Montgomery, AL	2	2	01-051-0004 (Wetumpka) 01-101-1002 (MOMS)	Y
Tuscaloosa, AL	1	1	01-125-0010 (Duncanville)	Y
N/A – Sumter County, AL	0	1	01-119-0003 (Ward)	Y

[1]Monitors operated by the JCDH.
[2]Monitors operated by the HDNREM.

Table 6. O_3 Design Criteria – Non-SLAMS Monitors

CBSA	# Existing Non-SLAMS Monitors	Non-SLAMS Monitoring Type	AQS IDs (Site Name) of Non-SLAMS Monitors in Plan
None	1	CASTNET	01-049-9991 (Sand Mountain)

The proposed O_3 monitoring network described in the Network Plan meets the design criteria of 40 CFR Part 58.

CO Monitoring Requirements
40 CFR Part 58, Appendix D, Section 4.2

Ambient air monitoring network design criteria for CO are found in 40 CFR Part 58, Appendix D, Section 4.2. This section requires CBSAs with populations over one million to operate one CO monitor collocated with a near-road NO_2 monitor. Only the Birmingham-Hoover, AL CBSA meets the threshold for having a CO monitor and the JCDH operates the required monitor.

Table 7. CO Design Criteria – Minimum Required SLAMS Near-Road Monitors

CBSA	# Minimum Required Near-Road Monitors	# Near-Road Monitors	AQS IDs (Site Name) of Existing Near-Road Monitors	Requirement Met (Y/N)
Birmingham-Hoover, AL	1	1	01-073-2059 (Arkadelphia)	Y

The Regional Administrator required monitoring for CO's are found in 40 CFR Part 58, Appendix D Section 4.2.2. The section states, "[t]he Regional Administrators, in collaboration with states, may require additional CO monitors above the minimum number of monitors required in 4.2.1." The Regional Administrator has not identified any required CO monitor for Alabama to date.

Table 8. CO Design Criteria – Minimum Required SLAMS RA Required Monitors

CBSA	# Minimum RA Required Monitors	# RA Required Monitors in Plan	AQS IDs (Site Name) of RA Required Monitor(s) in Plan	Requirement Met (Y/N)
None	0	0	None	Y

The proposed CO monitoring network described in the Network Plan meets all design criteria of 40 CFR Part 58.

NO_2 Monitoring Requirements
40 CFR Part 58, Appendix D, Section 4.3

Ambient air monitoring network design criteria for NO_2 are found in 40 CFR Part 58, Appendix D, Section 4.3. Three types of NO_2 monitoring are required: near-road, area-wide, and Regional Administrator. These types of NO_2 monitoring are described in Sections 4.3.2, 4.3.3, and 4.3.4, respectively. The JCDH operates the one near-road NO_2 monitor in the Birmingham-Hoover, AL CBSA (see Table 9).

Table 9. NO_2 Design Criteria - Minimum Required SLAMS Near-Road Monitors

CBSA	# Minimum Required Near-Road Monitors	# Near-Road Monitors	AQS IDs (Site Name) of Existing Near-Road Monitors	Requirement Met (Y/N)
Birmingham-Hoover, AL	1	1	01-073-2059 (Arkadelphia)	Y

This section states there must be one monitoring station in each CBSA with a population of 1,000,000 or more persons to monitor a location of expected highest NO_2 concentrations representing the neighborhood or larger spatial scales. As identified in Table 10, one area-wide NO_2 monitor is required in the Birmingham-Hoover, AL CBSA. This monitor is located at the NCore site in Jefferson County and operated by the JCDH.

Table 10. NO_2 Design Criteria - Minimum Required SLAMS Area-Wide Monitors

CBSA	# Minimum Required Area-Wide Monitors	# Area-Wide Monitors	AQS IDs (Site Name) of Area-Wide Monitors	Requirement Met (Y/N)
Birmingham-Hoover, AL	1	1	01-073-0023 (North Birmingham)	Y

Ambient air monitoring network design criteria for Regional Administrator required NO_2 monitoring, often referred to as RA-40 monitoring, are found in 40 CFR Part 58, Appendix D, Section 4.3.4. Under these provisions, Regional Administrators must require a minimum of 40 additional NO_2 monitoring stations nationwide, with a primary focus on siting these monitors in locations to protect susceptible and vulnerable populations. The full list of NO_2 monitors identified by the EPA's Regional Administrators can be found on the EPA's website at http://www.epa.gov/ttnamti1/svpop.html. The Regional Administrator has not identified any required NO_2 monitor for Alabama to date.

Table 11. NO_2 Design Criteria - Minimum Required SLAMS RA-40 Monitors

CBSA	# Minimum Required RA-40 Monitors	# RA-40 Monitors in Plan	AQS IDs (Site Name) of RA-40 Monitors in Plan	Requirement Met (Y/N)
None	0	0	N/A	Y

The NO_2 monitoring network described by the ADEM in its Network Plan meets all design criteria of 40 CFR Part 58.

SO_2 Monitoring Requirements
40 CFR Part 58, Appendix D, Section 4.4

Ambient air monitoring network design criteria for SO_2 are found in 40 CFR Part 58, Appendix D, Section 4.4. This section requires that the population weighted emissions index (PWEI) be calculated by states for each CBSA. As a result, the SO_2 monitoring site(s) required in each CBSA will satisfy minimum monitoring requirements if the monitor(s) is sited within the boundaries of the parent CBSA and is of the following site types: population exposure, maximum concentration, source-oriented, general background, or regional transport. A SO_2 monitor at an NCore station may satisfy minimum monitoring requirements if that monitor is located within a CBSA with minimally required monitors consistent with Appendix D, Section 4.4.

Based upon PWEIs calculated using the latest population estimates and 2017 emission inventory data, the minimum numbers of monitors required for the CBSAs in Alabama are summarized in Table 12.

Table 12. SO_2 Design Criteria – Minimum Required SLAMS PWEI Monitors

CBSA	# Minimum Required PWEI Monitors	# PWEI Monitors	AQS IDs (Site Name) of Existing PWEI Monitors	Requirement Met (Y/N)
Birmingham-Hoover, AL	2	2*	01-073-0023 (North Birmingham) 01-073-1003 (Fairfield)	Y
Mobile, AL	0	1	01-097-0003 (Chickasaw)	Y

* The JCDH operates two SO_2 monitors in the Birmingham CBSA.

The Regional Administrator may require additional SO_2 monitoring stations above the minimum number of monitors required in 40 CFR Part 58, Appendix D, Section 4.4.2, where the minimum monitoring requirements are not sufficient to meet monitoring objectives. The Regional Administrator has not required any additional SO_2 monitoring in areas covered by the ADEM's network plan.

Table 13. SO_2 Design Criteria – Minimum Required SLAMS RA Monitors

CBSA	# Minimum RA Required Monitors	# RA-Required Monitors in Plan	AQS IDs (Site Name) of Existing SLAMS Monitors in Plan	Requirement Met (Y/N)
None	0	0	None	Y

The SO_2 Data Requirements Rule requires that agencies identify and characterize air quality around large sources of SO_2. By January 15, 2016, agencies were required to submit to the EPA a list of sources that emit 2,000 tons per year or more of SO_2, based on the most recently available data. The ADEM has identified only one source that will be characterized using ambient monitoring (see Table 14).

Table 14. SO_2 Design Criteria – Data Requirement Rule Monitors

CBSA	# Minimum Required	# Required in Plan	AQS IDs (Site Name) of Existing SLAMS in Plan	Requirement Met (Y/N)
Birmingham-Hoover, AL	1	1	01-117-9001 (L'hoist, Montevallo Plant)	Y

The proposed SO_2 monitoring network described in the Network Plan meets all design criteria of 40 CFR Part 58.

Pb Monitoring Requirements
40 CFR Part 58, Appendix A, Section 3.4
40 CFR Part 58, Appendix D, Section 4.5

The monitoring requirements for Pb found at 40 CFR Part 58, Appendix D, Section 4.5 require that at a minimum, there must be one source-oriented SLAMS site located to measure the maximum Pb concentration in ambient air resulting from each non-airport Pb source which emits 0.50 or more tons per year and from each airport which emits 1.0 or more tons per year. Only one non-airport Pb source in Alabama meets the emissions threshold for monitoring and it is located in Troy (see Table 15). No airport Pb source in Alabama emits 1.0 or more tons per year.

Table 15. Pb Design Criteria – Minimum Required SLAMS Source-Oriented Monitors

Source Name	CBSA	# Minimum Required Source-Oriented Monitors	# Source-Oriented Monitors in Plan	AQS IDs (Site Name) of Existing Source-Oriented Monitors in Plan	Requirement Met (Y/N)
Sanders Lead	Troy	1	1	01-109-0003 (Troy Lead)	Y

The Pb collocation requirements are found in 40 CFR Part 58, Appendix A, 3.4.4. Those requirements include that: 15 percent of the primary monitoring are collocated and have at least one collocated quality control monitor (if the total number of monitors is less than three). These collocation requirements are assessed at the PQAO level. The ADEM operates the one required collocated Pb monitor at its Troy Lead site (see Table 16).

Table 16. Pb Design Criteria – Minimum Required Collocated Monitors

PQAO	# Minimum Required Collocated Monitors	# Existing Collocated Monitors	AQS IDs (Site Name) of Collocated Monitoring Sites in Plan	Requirement Met (Y/N)
ADEM	1	1	01-109-0003 (Troy Lead)	Y

The proposed Pb monitoring network described in the Network Plan meets all design criteria of 40 CFR Part 58.

PM_{10} Monitoring Requirements
40 CFR Part 58, Appendix A, Section 3.3
40 CFR Part 58, Appendix D, Section 4.6 and Table D-4

Ambient air monitoring network design criteria for PM_{10} are found in 40 CFR Part 58, Appendix D, Section 4.6. Table D-4. This section indicates the approximate number of PM_{10} stations required in MSAs with populations exceeding 100,000 to characterize national and regional PM_{10} air quality trends and geographical patterns. One monitor is required in the Montgomery, AL MSA and the ADEM operates it at the MOMS site.

Table 17. PM_{10} Design Criteria – Minimum Required SLAMS Monitors

MSA	# Minimum Required SLAMS Monitors	# SLAMS Monitors in Plan	AQS IDs (Site Name) of Existing SLAMS Monitors in Plan	Requirement Met (Y/N)
Montgomery, AL	0-1	1	01-101-1002 (MOMS)	Y

The PM_{10} collocation requirements for manual methods found in 40 CFR Part 58, Appendix A, Section 3.3.4. Those requirements include that: 15 percent of each network of manual PM_{10} methods (at least one site) must be collocated, and the sites with collocated monitors should be among those measuring annual mean concentrations in the highest 25 percent of the network. These collocation requirements are assessed at the primary quality assurance organization (PQAO) level. The one required PM_{10} collocated monitor is located at the MOMS site.

Table 18. PM_{10} Design Criteria – Minimum Required Collocated Monitors

PQAO	# Minimum Required Collocated Monitors	# Existing Collocated Monitors	AQS IDs (Site Name) of Existing SLAMS Monitors in Plan	Requirement Met (Y/N)
ADEM	1	1	01-101-1002 (MOMS)	Y

The proposed PM_{10} monitoring network described in the Network Plan meets all design criteria of 40 CFR Part 58.

$PM_{2.5}$ Monitoring Requirements
40 CFR Part 58, Appendix A, Section 3.2.3
40 CFR Part 58, Appendix D, Section 4.7 and Table D-5
Ambient air monitoring network design criteria for $PM_{2.5}$ are found in 40 CFR Part 58, Appendix D, Section 4.7. This section requires that the state and, where applicable, local agencies must operate the minimum number of required $PM_{2.5}$ SLAMS sites listed in Appendix D, Table D-5. Only three $PM_{2.5}$ monitors are required in Alabama (all in Jefferson County); however, the ADEM and two local agencies operate 14 total sites.

Table 19. $PM_{2.5}$ Design Criteria – Minimum Required SLAMS Monitors

MSA	# Minimum Required SLAMS Monitors	# of SLAMS Monitors in Plan	AQS IDs (Site Name) of SLAMS Monitors in Plan	Requirement Met (Y/N)
Anniston-Oxford-Jacksonville, AL	0	0	N/A	Y
Auburn-Opelika, AL	0	0	N/A	Y
Birmingham-Hoover, AL	3	0[1]	Covered by 5 sites in Jefferson County.	Y
Columbus, GA-AL	0	1	01-113-0003 (Phenix City)	Y
Daphne-Fairhope-Foley, AL	0	1	01-003-0010 (Fairhope)	Y
Decatur, AL	0	1	01-103-0011 (Decatur)	Y
Dothan, AL	0	0	N/A	Y
Florence-Muscle Shoals, AL	0	0	N/A	Y
Gadsden, AL	0	1	01-055-0010 (Gadsden C. College)	Y
Huntsville, AL	0	0[2]	Covered by one site in Madison County.	Y
Mobile, AL	0	1	01-097-0003 (Chickasaw)	Y
Montgomery, AL	0	1	01-101-1002 (MOMS)	Y
Tuscaloosa, AL	0	1	01-125-0004 (VA, Tuscaloosa)	Y

[1]Five sites operated by the JCDH meet this requirement.
[2]One site operated by the HDNREM.

Forty (40) CFR Part 58, Appendix A, Section 3.2.3 states that fifteen percent of each network of manual $PM_{2.5}$ methods (at least one site) must be collocated. 40 CFR Part 58, Appendix A, Section 3.2.3.1 states for each distinct monitoring method designation (FRM or FEM) that a PQAO is using for a primary monitor, the PQAO must have 15 percent of the primary monitors of each method designation collocated; and have at least one collocated quality control monitor. The first collocated monitor must be a designated FRM monitor. Section 3.2.3.2 states for each primary monitor designated as an FEM used by the PQAO, 50 percent of the monitors designated for collocation (or the first if only one collocation is necessary) shall be collocated with a FRM quality control monitor and 50 percent of the monitors shall be collocated with a monitor having the same method designation as the FEM primary monitor. Alabama is required to have two collocated $PM_{2.5}$ monitors and the ADEM operates them at its MOMS and Phenix City sites.

Table 20. $PM_{2.5}$ Design Criteria – Minimum Required Collocated Monitors

Agency	# Minimum Required Collocated Monitors	# Existing Collocated Monitors	AQS IDs (Site Name) of Existing SLAMS Monitors in Plan	Requirement Met (Y/N)
ADEM	2	2	01-101-1002 (MOMS) 01-113-0003 (Phenix City)	Y

The proposed $PM_{2.5}$ monitoring network described in the Network Plan meets all design criteria of 40 CFR Part 58.

$PM_{2.5}$ Near-Road Monitoring Requirements
40 CFR Part 58, Appendix D, Section 4.7.1(b)(2)

Regulatory requirements in 40 CFR Part 58, Appendix D, 4.7.1(b)(2) require that CBSAs with a population of 1,000,000 or more persons, at least one $PM_{2.5}$ monitor is to be collocated at a near-road NO_2 station. $PM_{2.5}$ near-road monitoring was required in the Birmingham-Hoover CBSA by January 1, 2017 and has been established by the JCDH.

Table 21. $PM_{2.5}$ Design Criteria - Minimum Required SLAMS Near-Road Monitors

CBSA	# Minimum Required Near-Road Monitors	# Near-Road Monitors	AQS IDs (Site Name) of Existing Near-Road Monitors	Requirement Met (Y/N)
Birmingham-Hoover, AL	1	1*	01-073-2059 (Arkadelphia)	Y

*Near-road monitoring site operated by the JCDH meets this requirement.

The proposed near-road $PM_{2.5}$ monitoring network described in the Network Plan meets all design criteria of 40 CFR Part 58.

$PM_{2.5}$ Continuous Monitoring Requirements
40 CFR Part 58, Appendix D, Section 4.7.2

Regulatory requirements for continuous $PM_{2.5}$ monitoring require that the state, or where appropriate, local agencies must operate continuous $PM_{2.5}$ analyzers equal to at least one-half (round up) the minimum required sites listed in Appendix D, Table D–5. Five $PM_{2.5}$ continuous monitors are required in Alabama and the ADEM and two local agencies operate eleven monitors.

Table 22. $PM_{2.5}$ Design Criteria – Minimum Required Continuous Monitors

MSA	# Minimum Required Continuous Monitors	# Continuous Monitors	AQS IDs (Site Name) of Existing Continuous Monitors	Requirement Met (Y/N)
Anniston-Oxford-Jacksonville, AL	0	0	N/A	Y
Auburn-Opelika, AL	0	0	N/A	Y
Birmingham-Hoover, AL	2	6[1]	01-073-5003 (Corner) 01-073-1010 (Leeds) 01-073-1005 (McAdory) 01-073-0023 (North Birmingham) 01-073-6004 (Shuttlesworth) 01-073-2003 (Wylam)	Y
Columbus, GA-AL	1	1	01-113-0003 (Phenix City)	Y
Daphne-Fairhope-Foley, AL	0	0	N/A	Y
Decatur, AL	0	1	01-103-0011 (Decatur)	Y
Dothan, AL	0	0	N/A	Y
Florence-Muscle Shoals, AL	0	0	N/A	Y
Gadsden, AL	0	0	N/A	Y
Huntsville, AL	1	1[2]	01-089-0014 (Old Airport)	Y
Mobile, AL	0	1	01-097-0003 (Chickasaw)	Y

Montgomery, AL	1	1	01-101-1002 (MOMS)	Y
Tuscaloosa, AL	0	0	N/A	Y

[1]Six sites operated by the JCDH meet this requirement.
[2]One site operated by the HDNREM meets this requirement.

At least one required continuous analyzer in each MSA must be collocated with one of the required FRM/FEM/ARM monitors, unless at least one of the required FRM/FEM/ARM monitors is itself a continuous FEM or ARM monitor in which case no collocation requirement applies.

These minimum continuous $PM_{2.5}$ monitoring requirements are being met by the ADEM. Also, the continuous $PM_{2.5}$ collocation requirements are being met in all MSAs. The continuous $PM_{2.5}$ monitoring network described in the Network Plan meets all design criteria of 40 CFR Part 58.

$PM_{2.5}$ Background and Transport Sites
40 CFR Part 58, Appendix D, Section 4.7.3

Monitoring requirements in 40 CFR Part 58, Appendix D, Section 4.7.3 state that each state shall install and operate at least one $PM_{2.5}$ site to monitor for regional background and at least one $PM_{2.5}$ site to monitor for regional transport. The ADEM exceeds the $PM_{2.5}$ background monitor requirement by operating two monitors and meets the $PM_{2.5}$ transport monitor requirement by operating one monitor (see Table 23).

Table 23. $PM_{2.5}$ Regional Background and Transport Monitors

Requirement	# Minimum Required Monitors	# Monitors in Plan	AQS IDs (Site Name) of Existing SLAMS Monitors in Plan	Requirement Met (Y/N)
Background	1	2	01-049-1003 (Crossville) 01-119-0003 (Ward)	Y
Transport	1	1	01-027-0001 (Ashland)	Y

The ADEM meets the requirements of 40 CFR Part 58 for background and transport sites.

$PM_{2.5}$ Chemical Speciation Network (CSN)
40 CFR Part 58, Appendix D, Section 4.7.4

Monitoring requirements in 40 CFR Part 58, Appendix D, Section 4.7.4 state that each state shall conduct chemical speciation monitoring and analyses at sites designated to be part of the $PM_{2.5}$ Speciation Trends Network (STN). The selection and modification of these STN sites must be approved by the Administrator. The $PM_{2.5}$ CSN includes STN stations and supplemental speciation stations that provide chemical species data of fine particulate. The ADEM operates one CSN site at its Phenix City site.

Table 24. $PM_{2.5}$ Chemical Speciation Network – Non-SLAMS Monitors

CBSA	AQS IDs (Site Name) of CSN Monitor in Plan
Columbus, GA-AL	01-113-0001 (Phenix City)

The operation of this monitor is consistent with the most recent CSN review completed by the EPA.

Photochemical Assessment Monitoring Stations (PAMS)
40 CFR Part 58, Appendix D, Section 5.0

With the promulgation of a new O_3 NAAQS on October 1, 2015, the EPA finalized changes to the PAMS requirements. The EPA is working on a proposed rule that will provide state and local agencies an additional two years from the current implementation date of June 1, 2019, to implement the PAMS program requirements. This extension is needed to provide all agencies the funding and equipment necessary to implement the program. This requirement for Alabama will be met in Jefferson County by the JCDH. The JCDH will continue preparing to implement the program as resources allow with the goal of full implementation on or before June 1, 2021.

The EPA will work with the JCDH to address the implementation challenges of this new monitoring program. At this time, however, the PAMS requirement is being met in the state.

Non-SLAMS Monitoring

The non-SLAMS monitors operated by the ADEM are summarized in Table 25 have previously been mentioned.

Table 25. Non-SLAMS Monitors

CBSA	Pollutant, AQS IDs (Site Name) and Type of Non-SLAMS Monitor in Plan
Columbus, GA-AL	$PM_{2.5}$ Continuous: 01-113-0003 (Phenix City), SPM $PM_{2.5}$ Speciation: 01-113-0003 (Phenix City), SPM

Memoranda of Agreement (MOA) with Neighboring States

The ADEM does not have a MOA with neighboring states to address minimum monitoring requirements. They meet all the requirements independently outside of their local agency jurisdictions.

Site Assessments

In reference to the Network Plan, 40 CFR Part 58.10(a)(1) states:

> "The plan shall include a statement of whether the operation of each monitor meets the requirements of appendices A, C, D, and E of this part, where applicable. The Regional Administrator may require additional information in support of this statement."

Site assessment information was not collected and included in this year's network plan due to concerns about employee health and safety during the pandemic. We understand that this information will be provided before December 31, 2020.

Combined Sites Requests

The data from the following sites have been previously approved to be combined in order to maintain trends continuity due to site/monitor relocations in the same general area.

MSA	Pollutant	Old Site ID	New Site ID	Comment
Montgomery, AL	O_3	01-051-0003	01-051-0004	Approved in AQS with a cutover date of January 1, 2018.
Columbus, GA-AL (Phenix City)	O_3	01-113-0002	01-113-0003	Approved in AQS with a cutover date of March 1, 2018.
	$PM_{2.5}$	01-113-0001		Approved in AQS with a cutover date of September 30, 2016.